Power Supply Smoothing Use,Standard Capacitors (Common name : TONEREX) Series LAO

- **Adopting the newly developed formation method and composite electrolytic paper for audio application has reduced distortion, achieving high-quality sound.**
- **Best suited as power supply filters for sound quality priority audio equipment.**
- **Printed circuit board terminal snap-in type.**
- **Gold-printing on a black sleeve. (labeled "TONEREX")**

For audio

LAO ⇦ LA5

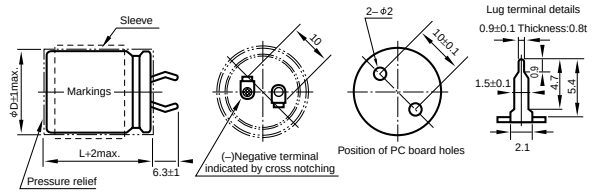
Specifications

Item	Performance				
Category temperature range (˚C)	−40 to +85				
Tolerance at rated capacitance (%)	±20				(20˚C,120Hz)
Leakage current (μA)	Less than 0.03CV or 5mA whichever is smaller(after 5 minutes) C: Rated capacitance(μF), V: Rated voltage(V)				(20˚C)
Tangent of loss angle (tanδ)	Rated voltage (V)	16	25	35	50 to 100
	tanδ (max.)	0.40	0.40	0.35	0.30
	(20˚C,120Hz)				
Characteristics at high and low temperature	Rated voltage (V)		16 to 35		50 to 100
	Impedance ratio (max.)	Z−25˚C / Z+20˚C	4		3
		Z−40˚C / Z+20˚C	15		10
	(120Hz)				
Endurance (85˚C) (Applied ripple current)	Test time	1000 hours			
	Leakage current	The initial specified value or less			
	Percentage of capacitance change	Within ±20% of initial value			
	Tangent of the loss angle	150% or less of the initial specified value			
Shelf life (85˚C)	Test time : 1000 hours. Other have same as endurance. Voltage application treatment				
Applicable standards	JIS C5101-1, -4 1998 (IEC 60384-1 1992, -4 1985)				

Outline Drawing

Unit: mm

Printed circuit board snap-in type(Series LAO)



Coefficient of Frequency for Rated Ripple Current

Rated voltage(V) \ Frequency(Hz)	50	120	1k	10k	20k
50 or less	0.95	1	1.10	1.15	1.15
63 to 100	0.95	1	1.16	1.30	1.33

Part numbering system (example: 63V6800μF)

Printed circuit board snap-in type	LAO	—	63V	682	MPD	S4	☐
	Series code		Rated voltage symbol	Rated capacitance symbol		Casing symbol	Additional symbol

• The standard ratings are described on the next page.

∗ There are overseas factory product only on this page.

NOTE
Design, Specifications are subject to change without notice.
Ask factory for technical specifications before purchase and/or use.

Standard Ratings

Rated voltage(V) / Item / Casing symbol / ø xL(mm)		16		25		35		50		63		80		100	
		Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current	Rated capacitance	Rated ripple current
		μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms
22x20	S1	3300	1.2	—	—	—	—	—	—	—	—	—	—	—	—
22x25	S1	4700	1.5	2200	1.0	1500	0.8	1000	0.8	680	0.7	—	—	—	—
22x30	S1	—	—	3300	1.3	2200	1.3	1500	1.1	1000	0.9	680	0.7	—	—
22x35	S1	6800	2.0	4700	1.7	3300	1.7	—	—	1500	1.2	1000	1.0	680	0.8
22x40	S1	—	—	—	—	—	—	2200	1.5	—	—	—	—	—	—
22x45	S1	10000	2.7	6800	2.2	4700	2.3	—	—	2200	1.6	—	—	—	—
22x50	S1	—	—	—	—	—	—	3300	2.0	—	—	1500	1.3	1000	1.2
25x25	S2	—	—	3300	1.7	2200	1.7	1500	1.4	1000	1.2	680	1.0	—	—
25x30	S2	6800	2.5	4700	2.1	3300	2.2	2200	1.8	1500	1.5	1000	1.2	680	1.1
25x35	S2	10000	3.2	—	—	—	—	—	—	—	—	—	—	—	—
25x40	S2	—	—	6800	2.7	4700	2.8	3300	2.3	2200	1.9	1500	1.6	1000	1.4
25x45	S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25x50	S2	—	—	10000	3.0	6800	2.6	4700	2.4	3300	2.0	2200	2.0	1500	1.8
30x25	S3	6800	2.6	4700	2.2	3300	2.3	2200	1.9	1500	1.6	1000	1.3	680	1.1
30x30	S3	10000	3.3	6800	2.7	4700	2.8	3300	2.4	2200	1.9	1500	1.6	1000	1.4
30x35	S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30x40	S3	—	—	10000	3.1	6800	2.7	4700	2.4	3300	2.1	2200	2.1	1500	1.8
30x45	S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30x50	S3	—	—	—	—	10000	3.4	6800	3.1	4700	2.6	3300	2.2	2200	1.8
35x25	S4	10000	3.4	6800	2.8	4700	2.9	3300	2.4	2200	2.0	1500	1.7	1000	1.5
35x30	S4	—	—	10000	3.1	6800	2.7	4700	2.5	3300	2.1	2200	2.1	1500	1.8
35x35	S4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35x40	S4	—	—	—	—	10000	3.5	6800	3.1	4700	2.6	3300	2.2	2200	1.8
35x45	S4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35x50	S4	—	—	—	—	—	—	—	—	6800	3.3	4700	2.7	—	—

(Note) Rated ripple current : 85˚C, 120Hz.

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